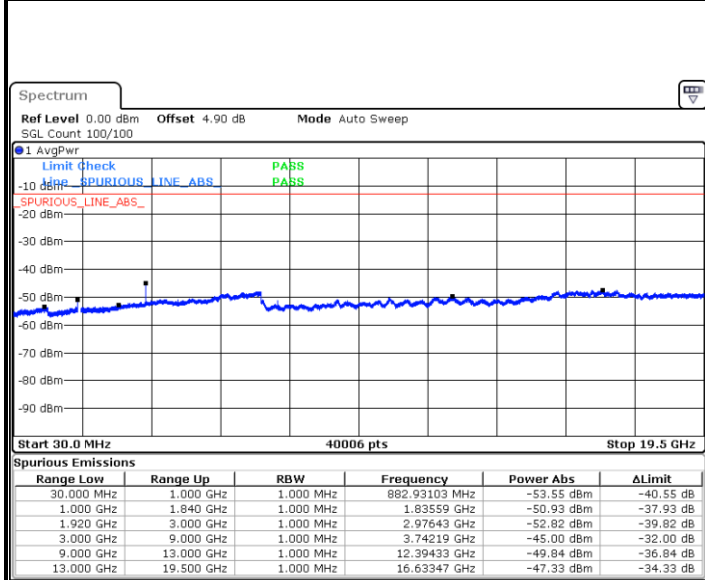




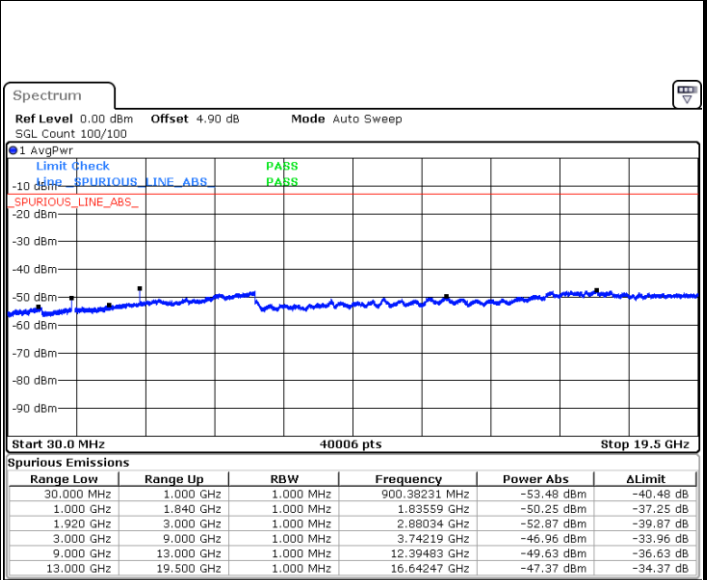
LTE Band 2 / 20MHz

Middle Channel / QPSK



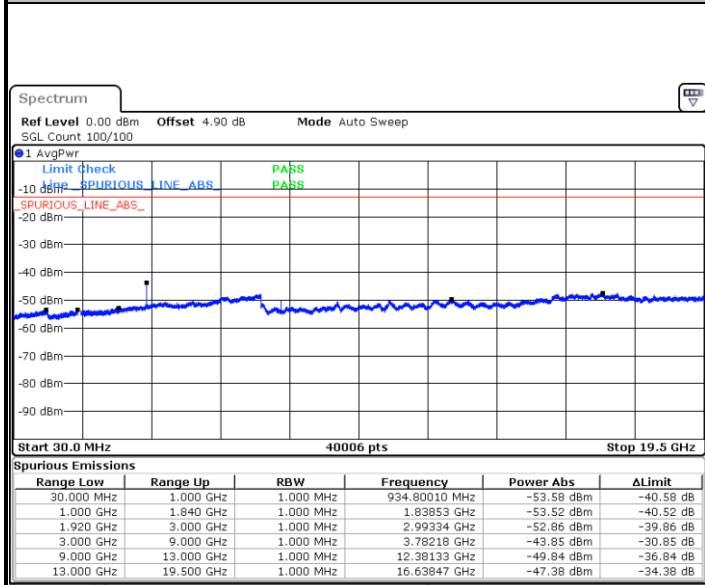
Date: 13 JUL 2018 18:01:49

Middle Channel / 16QAM



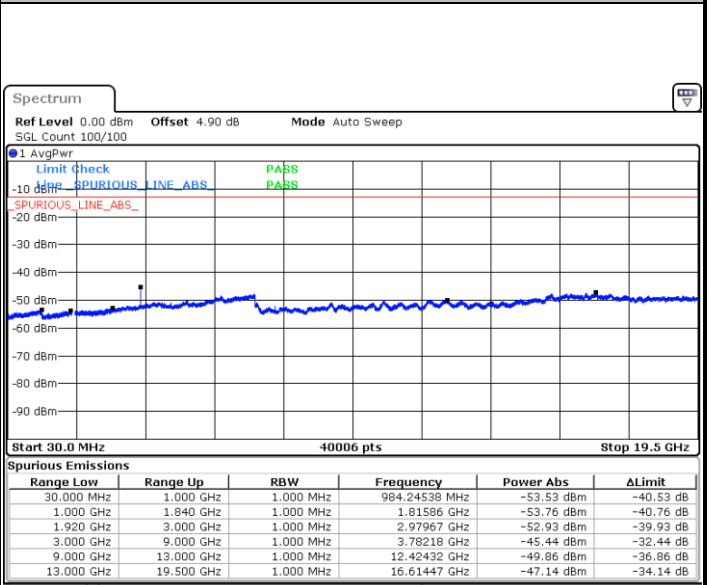
Date: 23 JUL 2018 22:36:48

Highest Channel / QPSK



Date: 13 JUL 2018 18:05:19

Highest Channel / 16QAM



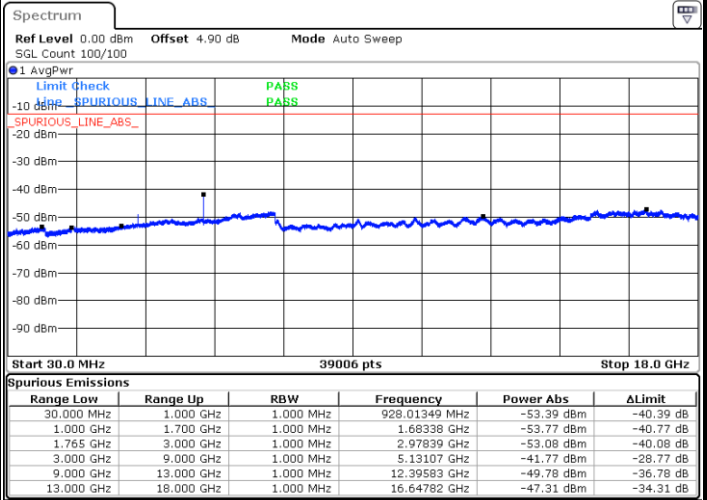
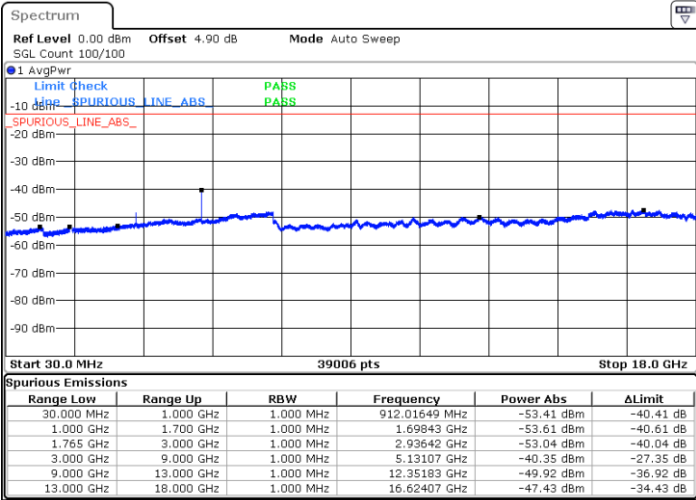
Date: 23 JUL 2018 22:35:52



LTE Band 4 / 1.4MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

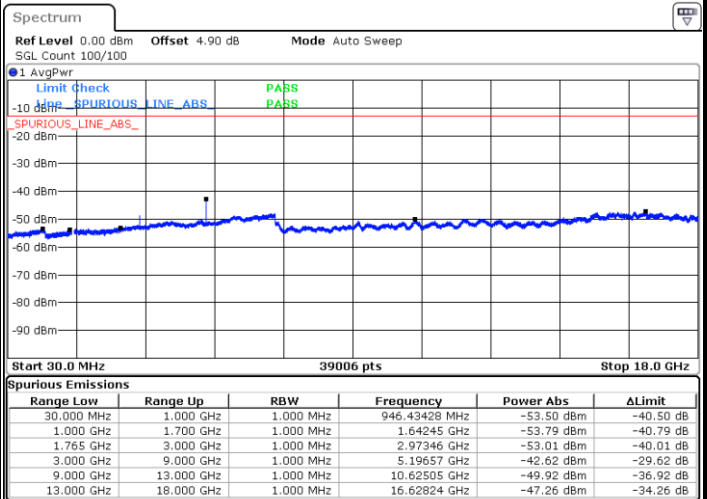
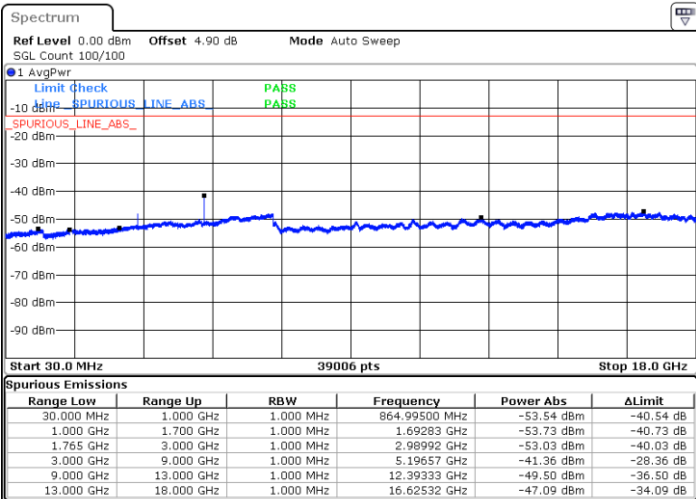


Date: 24 JUL 2018 00:00:33

Date: 24 JUL 2018 00:01:27

Middle Channel / QPSK

Middle Channel / 16QAM



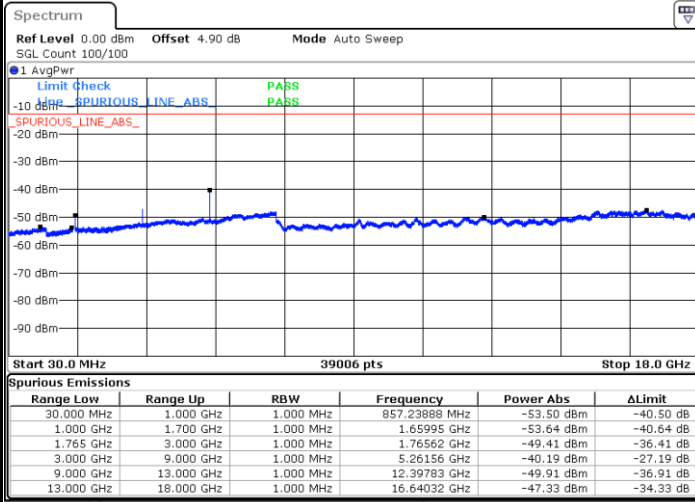
Date: 24 JUL 2018 00:03:02

Date: 24 JUL 2018 00:03:56



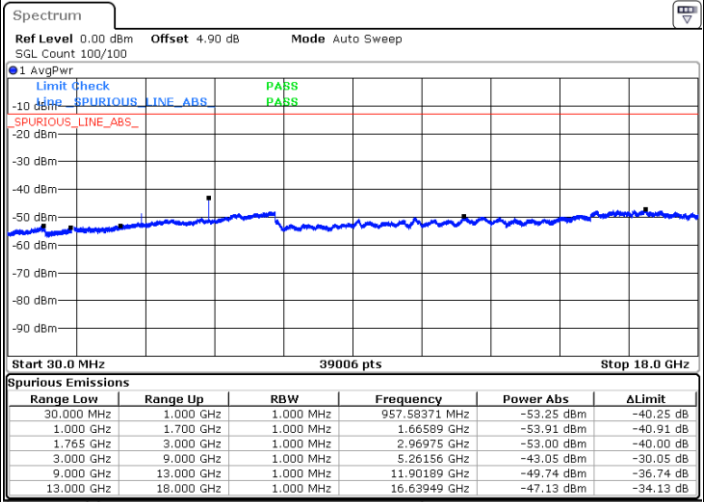
LTE Band 4 / 1.4MHz

Highest Channel / QPSK



Date: 24 JUL 2018 00:10:00

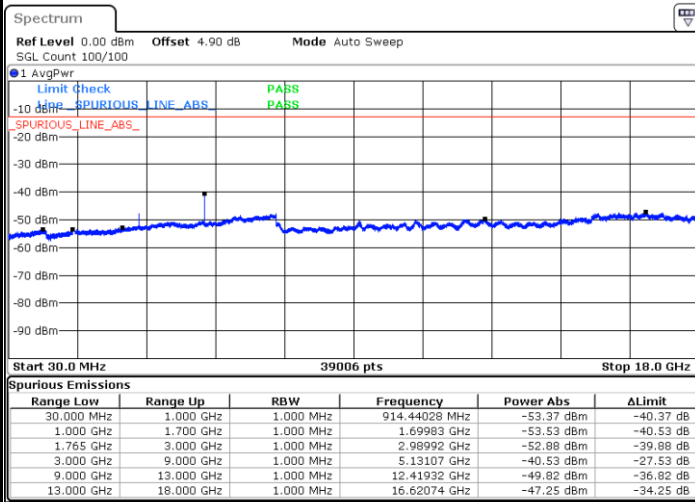
Highest Channel / 16QAM



Date: 24 JUL 2018 00:10:55

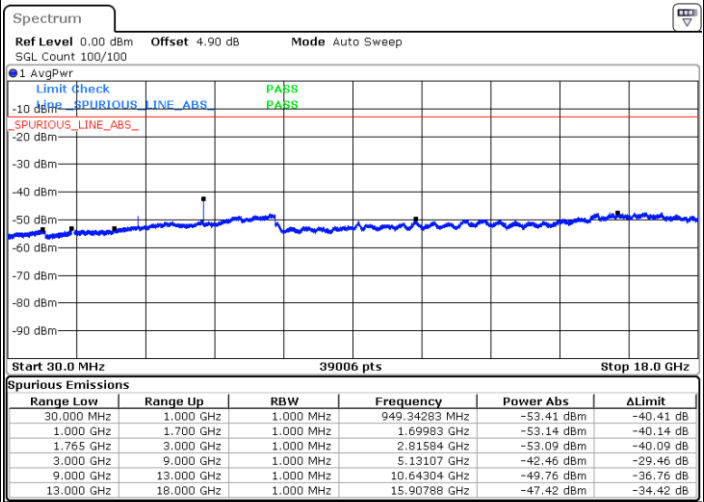
LTE Band 4 / 3MHz

Lowest Channel / QPSK



Date: 24 JUL 2018 00:16:58

Lowest Channel / 16QAM



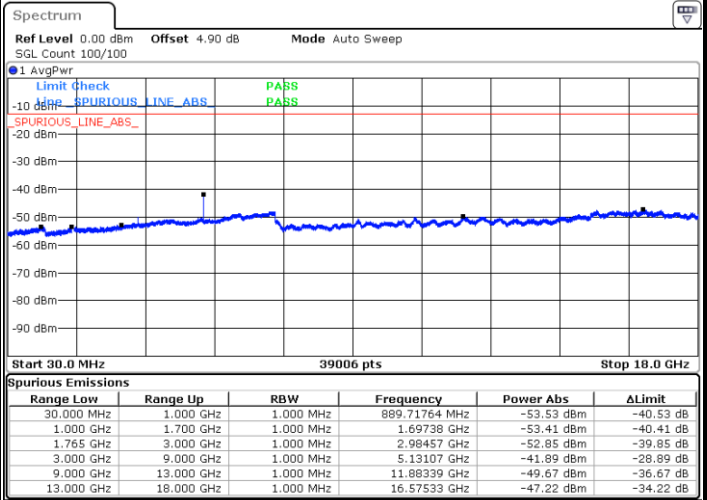
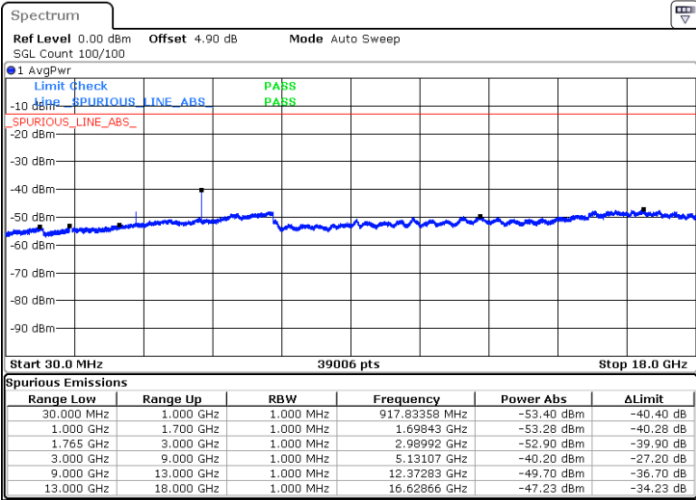
Date: 24 JUL 2018 00:17:53



LTE Band 4 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

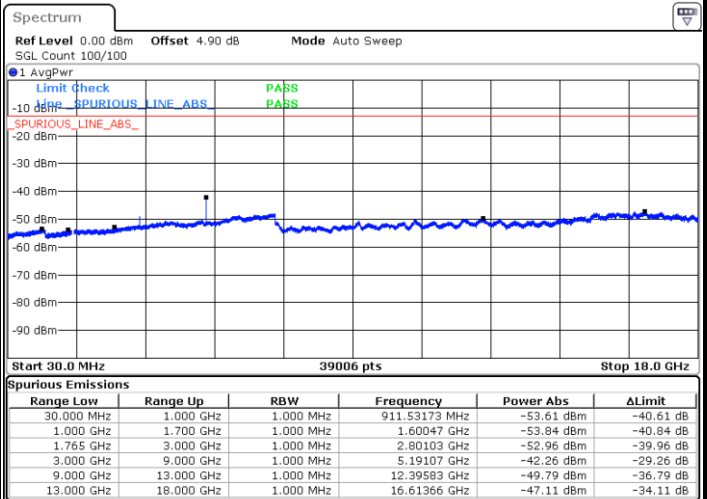
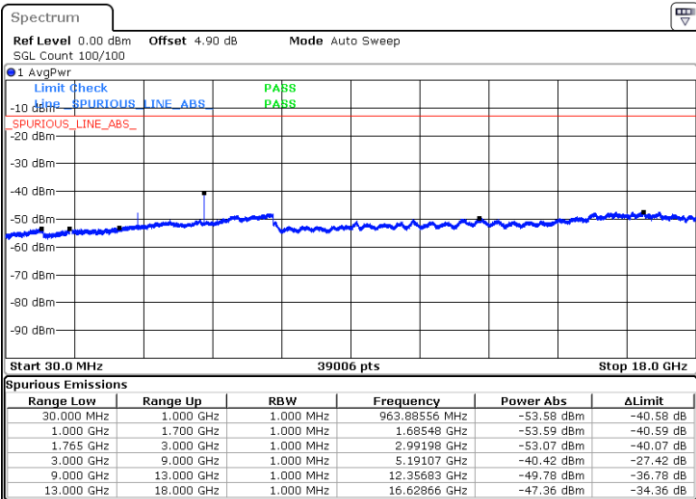


Date: 24 JUL 2018 00:33:24

Date: 24 JUL 2018 00:34:18

Middle Channel / QPSK

Middle Channel / 16QAM



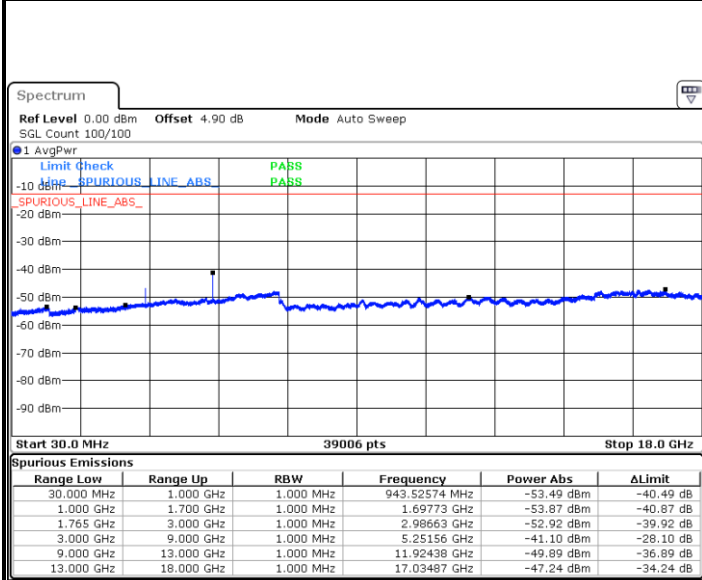
Date: 24 JUL 2018 00:35:53

Date: 24 JUL 2018 00:36:47



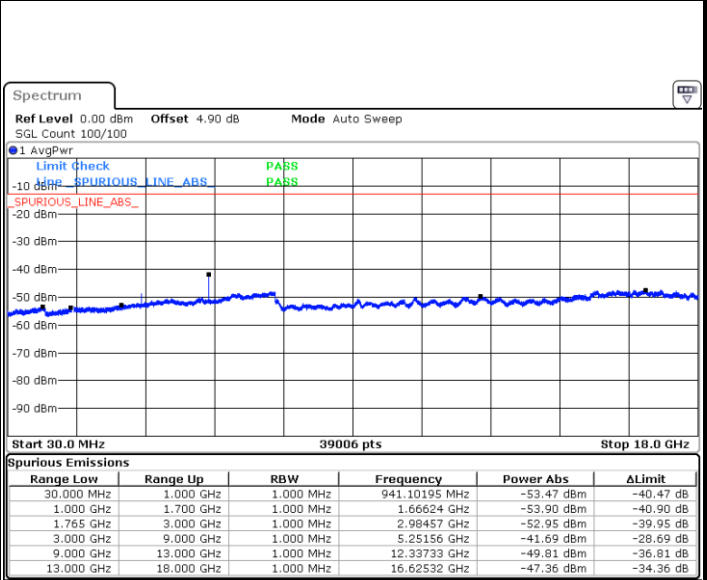
LTE Band 4 / 5MHz

Highest Channel / QPSK



Date: 24 JUL 2018 00:42:51

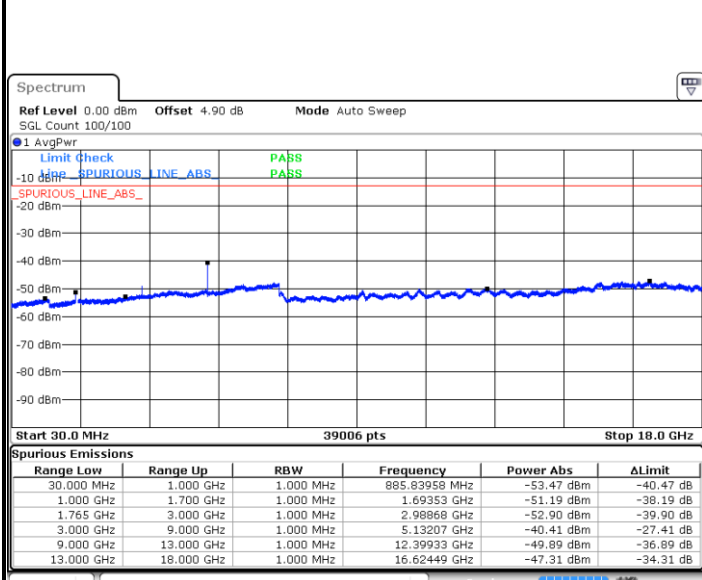
Highest Channel / 16QAM



Date: 24 JUL 2018 00:43:46

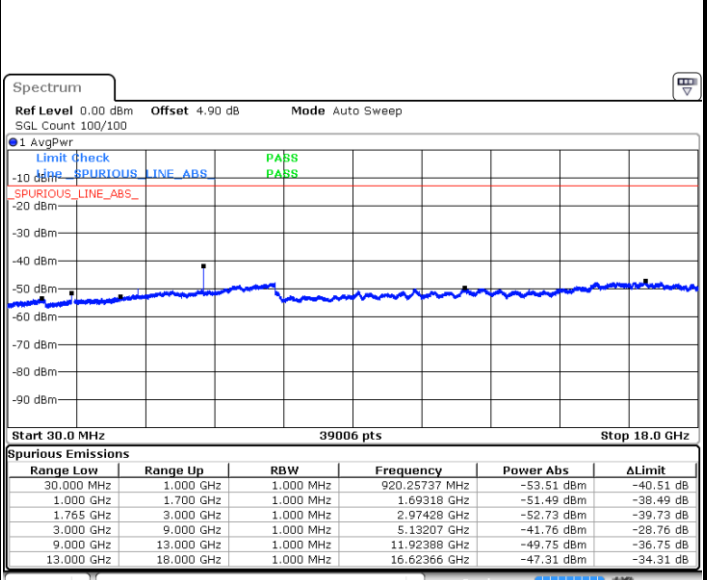
LTE Band 4 / 10MHz

Lowest Channel / QPSK



Date: 24 JUL 2018 00:48:22

Lowest Channel / 16QAM



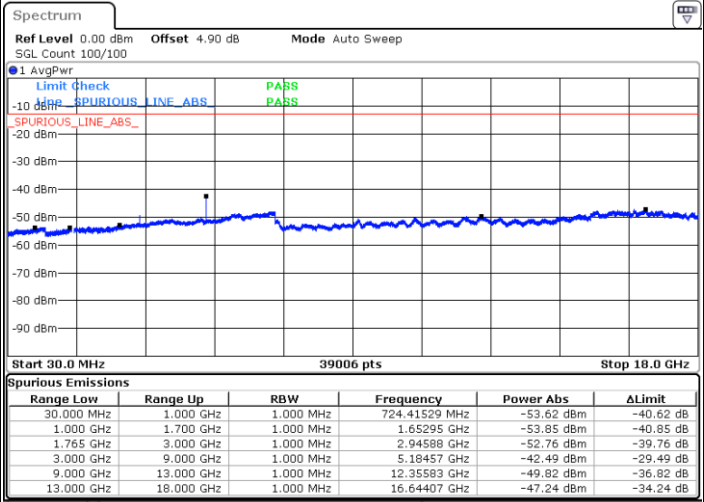
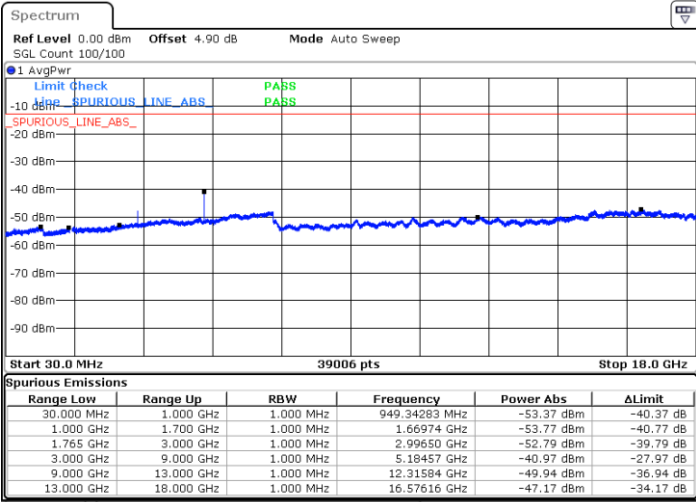
Date: 24 JUL 2018 00:49:17



LTE Band 4 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

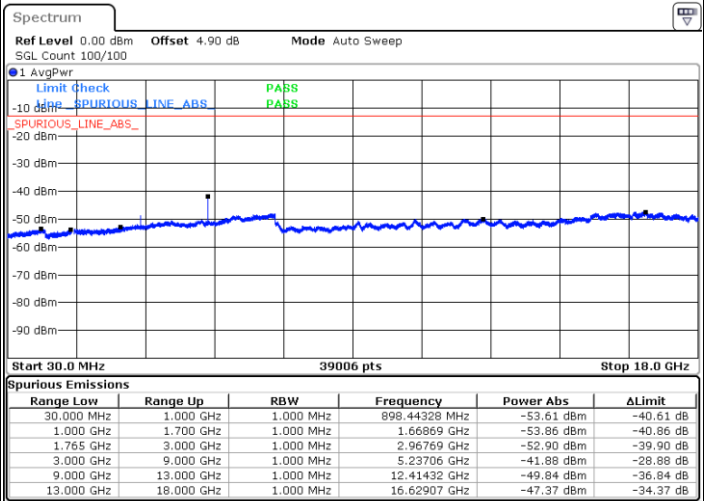
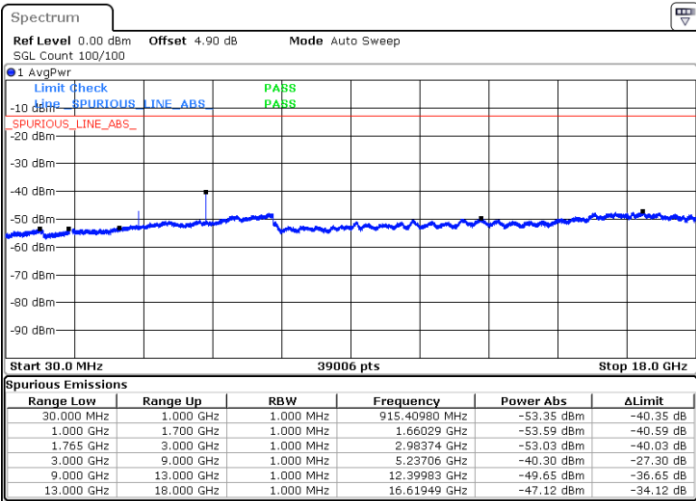


Date: 24 JUL 2018 00:50:31

Date: 24 JUL 2018 00:51:26

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 24 JUL 2018 00:54:55

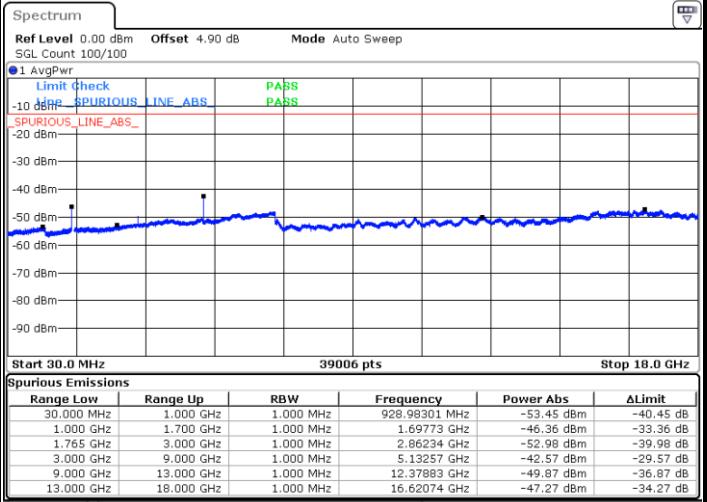
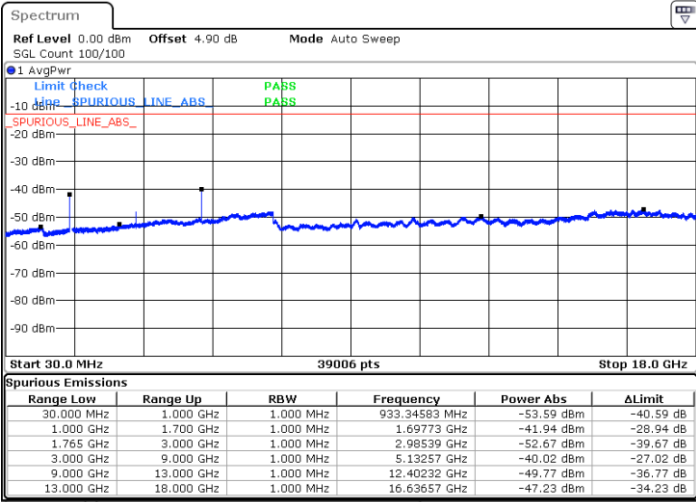
Date: 24 JUL 2018 00:55:50



LTE Band 4 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

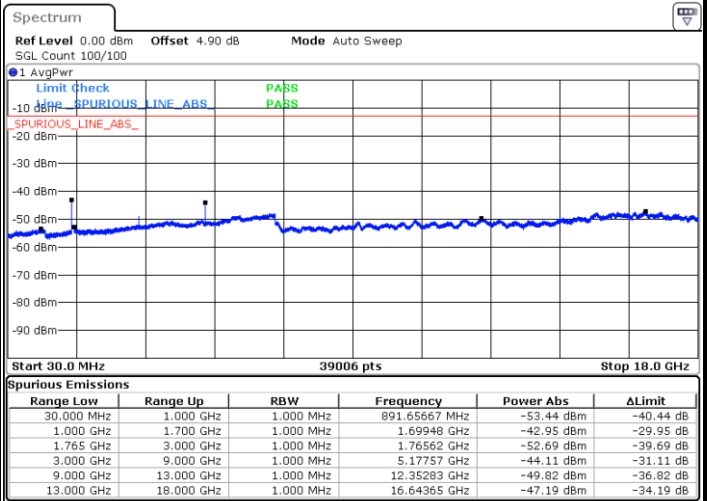
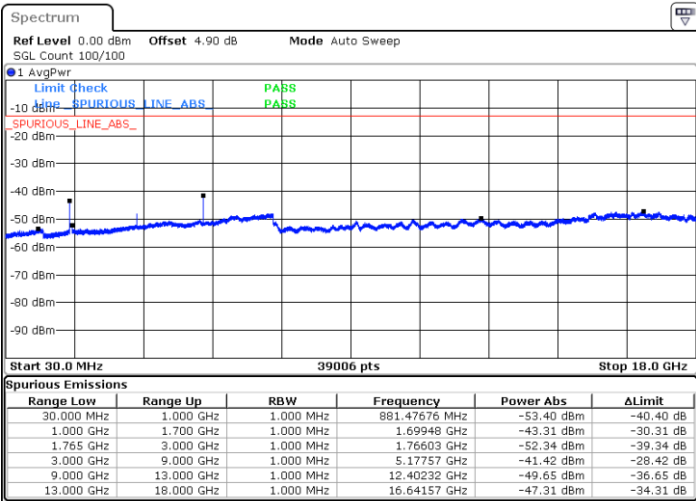


Date: 24 JUL 2018 01:00:27

Date: 24 JUL 2018 01:01:21

Middle Channel / QPSK

Middle Channel / 16QAM



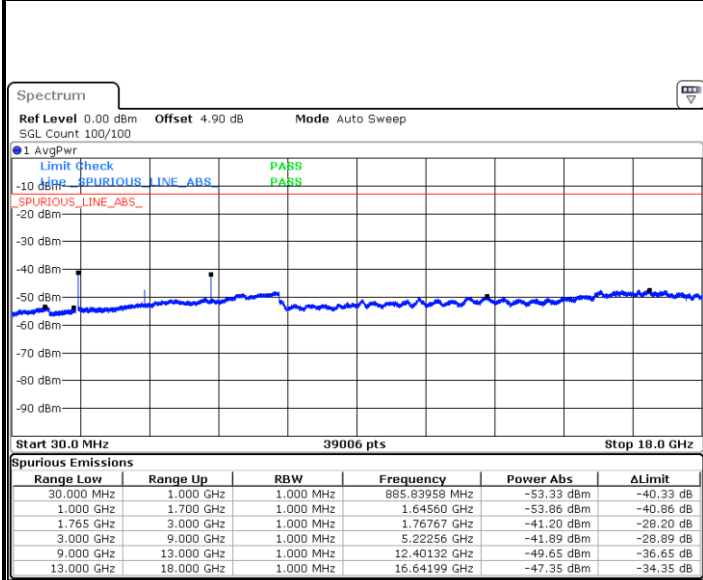
Date: 24 JUL 2018 01:02:36

Date: 24 JUL 2018 01:03:30



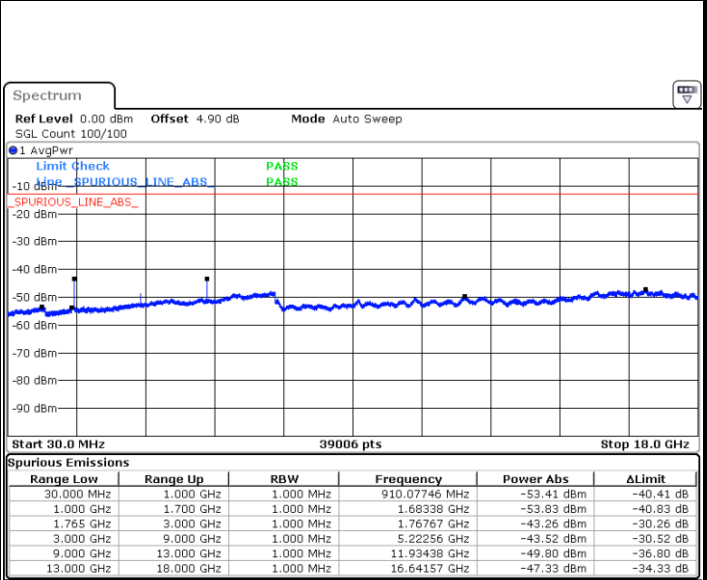
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 24 JUL 2018 01:06:59

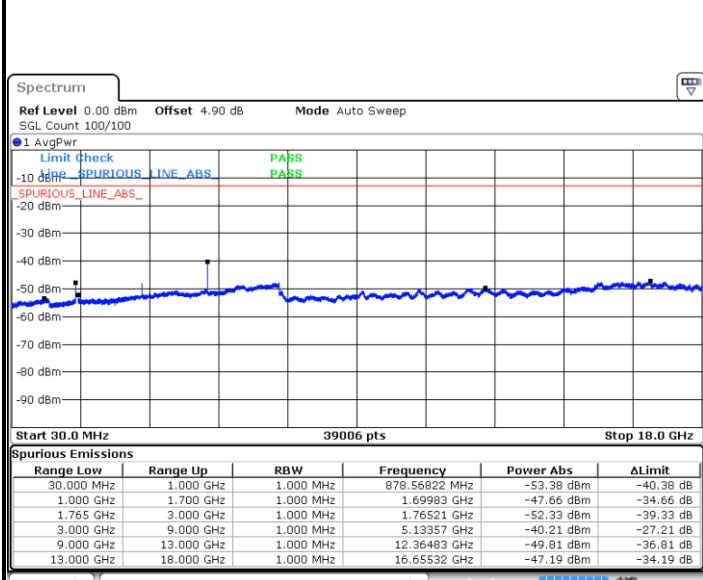
Highest Channel / 16QAM



Date: 24 JUL 2018 01:07:54

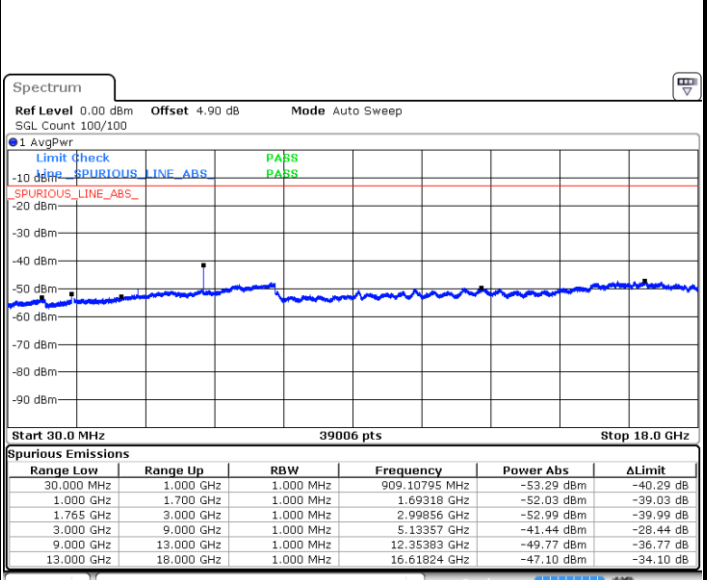
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 24 JUL 2018 01:12:30

Lowest Channel / 16QAM



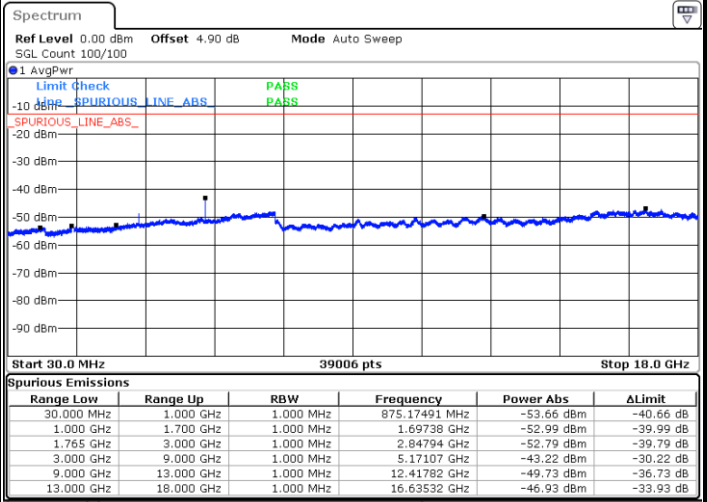
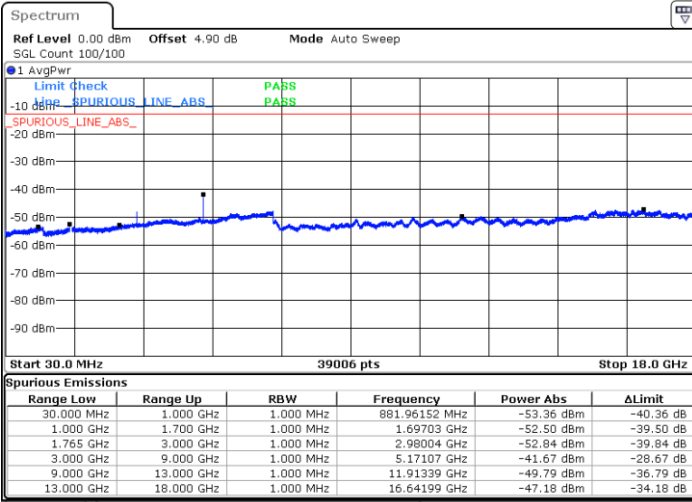
Date: 24 JUL 2018 01:13:25



LTE Band 4 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

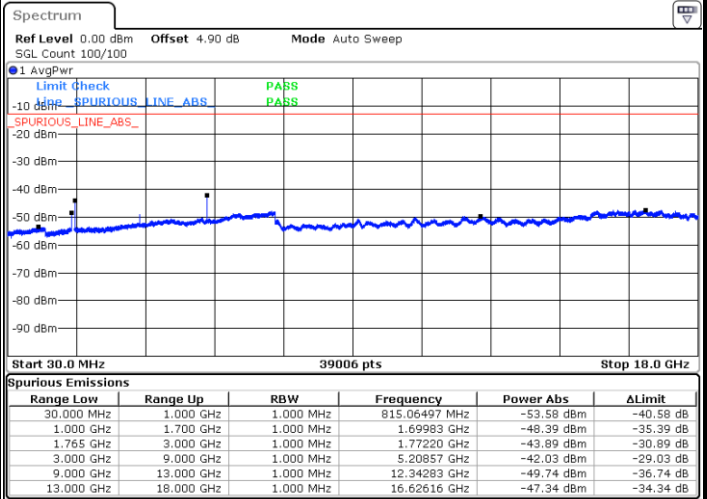
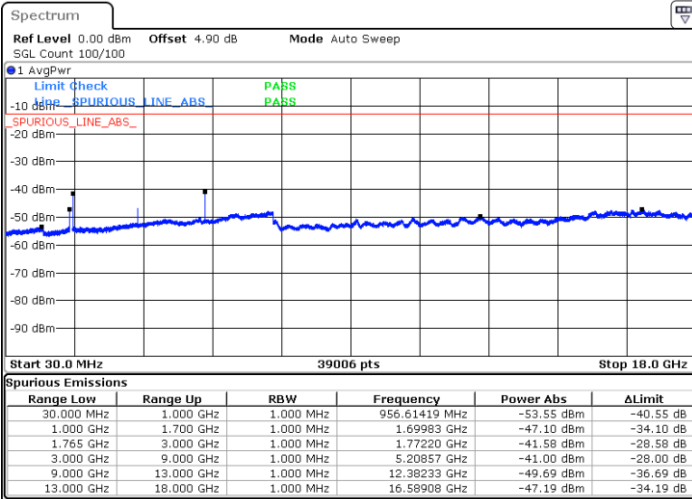


Date: 24 JUL 2018 01:14:40

Date: 24 JUL 2018 01:15:34

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 24 JUL 2018 01:19:03

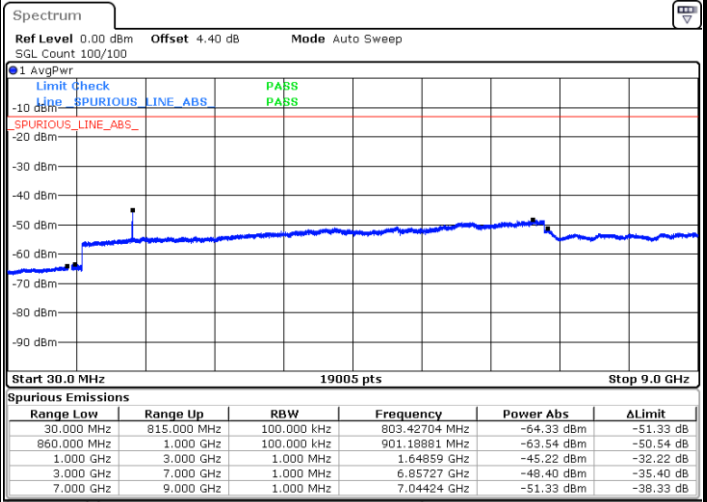
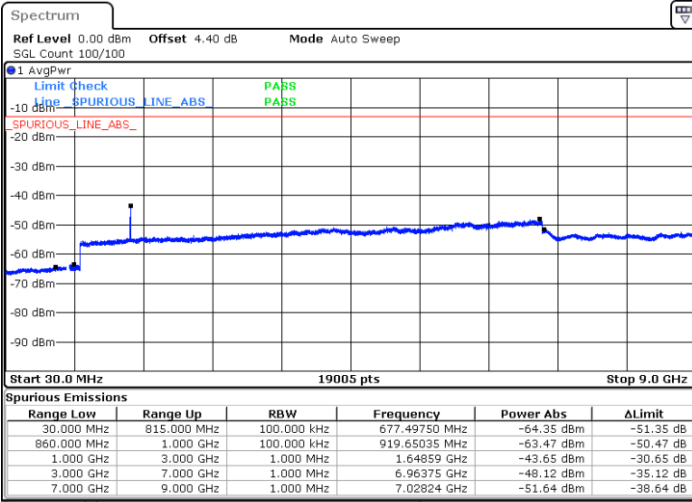
Date: 24 JUL 2018 01:19:58



LTE Band 5 / 1.4MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

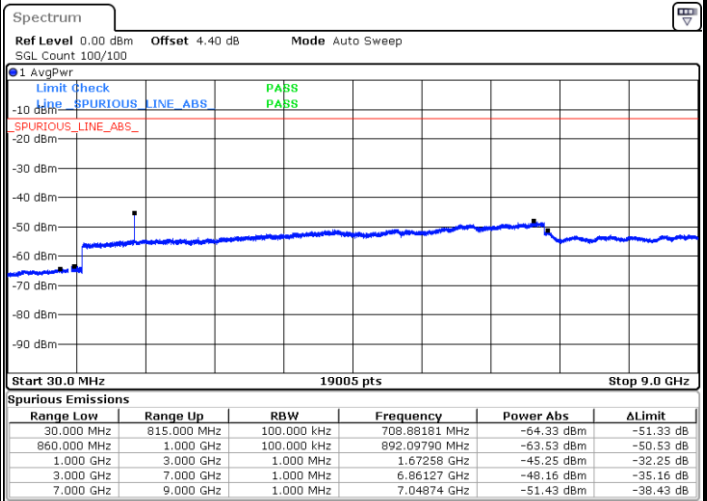
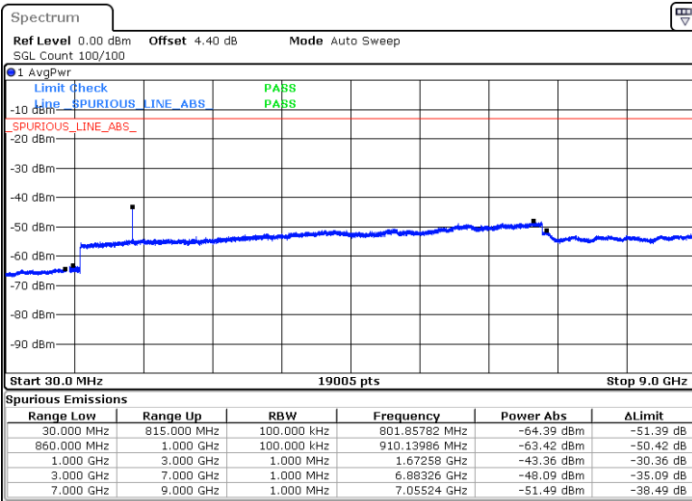


Date: 24 JUL 2018 11:18:53

Date: 24 JUL 2018 11:19:47

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 24 JUL 2018 11:21:21

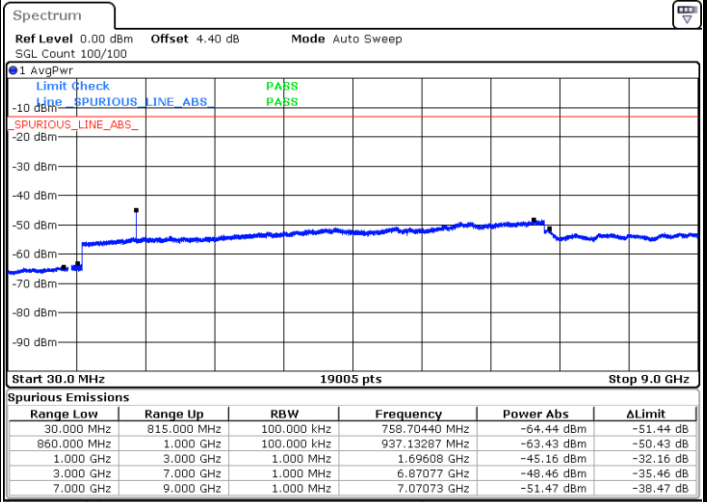
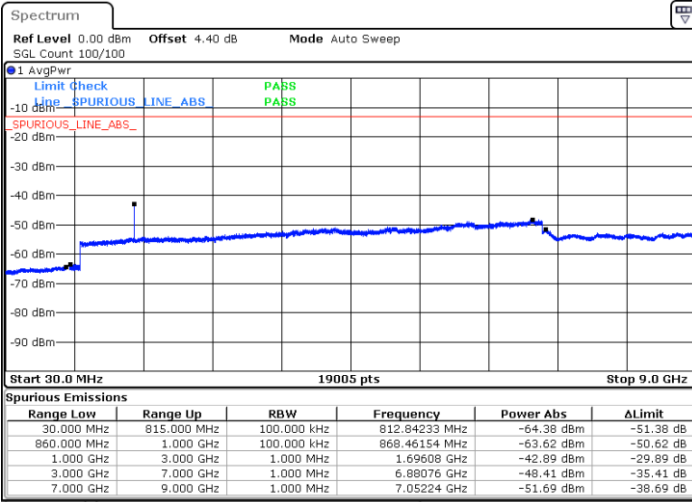
Date: 24 JUL 2018 11:22:15



LTE Band 5 / 1.4MHz

Highest Channel / QPSK

Highest Channel / 16QAM



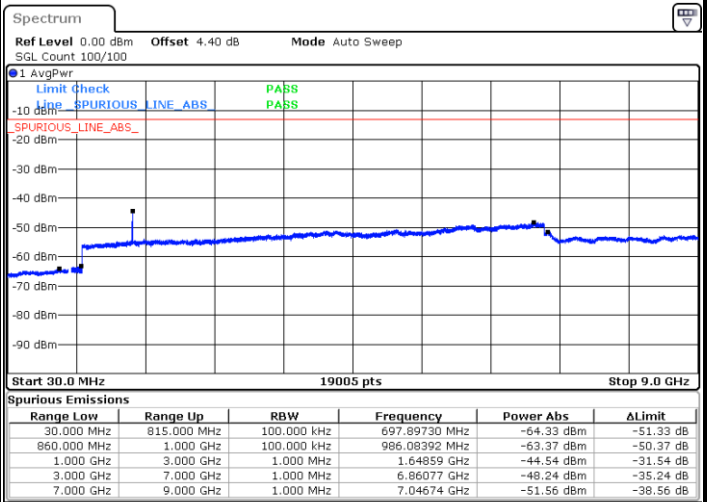
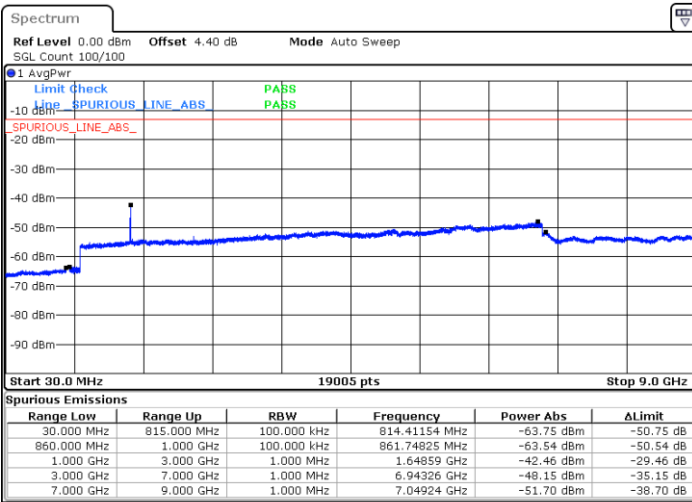
Date: 24 JUL 2018 11:30:19

Date: 24 JUL 2018 11:31:14

LTE Band 5 / 3MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 24 JUL 2018 11:39:17

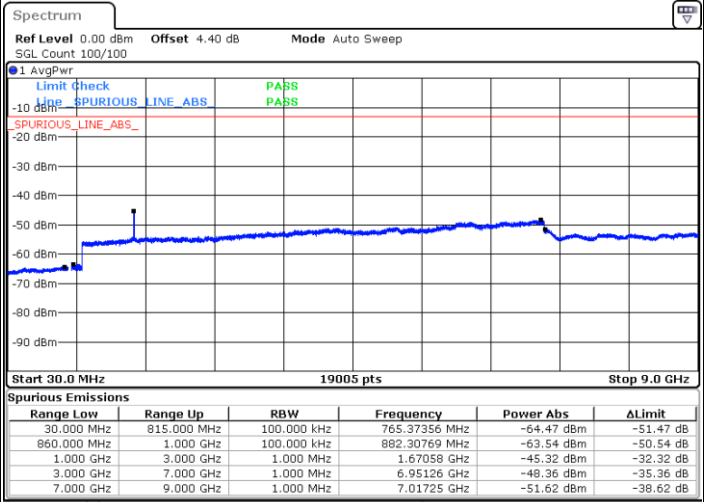
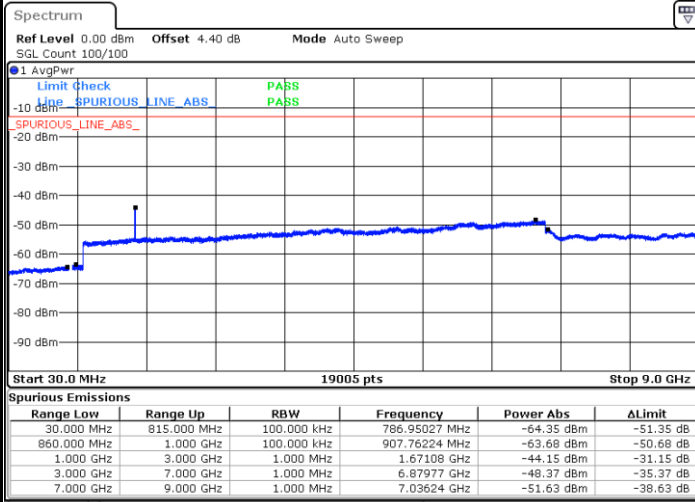
Date: 24 JUL 2018 11:40:12



LTE Band 5 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

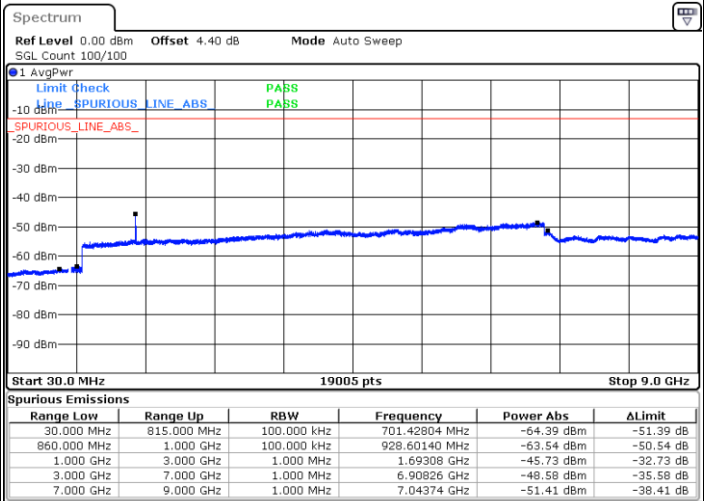
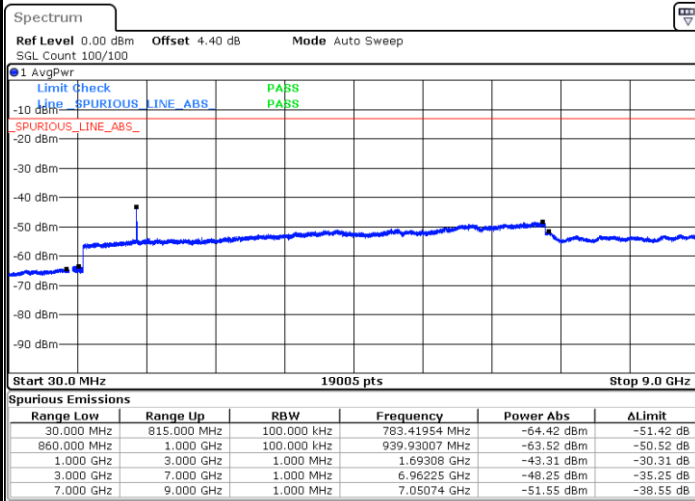


Date: 24 JUL 2018 11:41:46

Date: 24 JUL 2018 11:42:40

Highest Channel / QPSK

Highest Channel / 16QAM



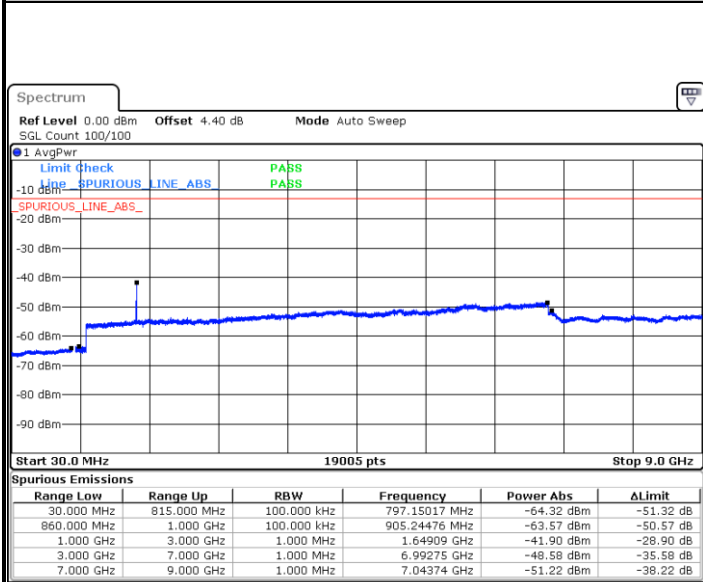
Date: 24 JUL 2018 11:50:44

Date: 24 JUL 2018 11:51:38



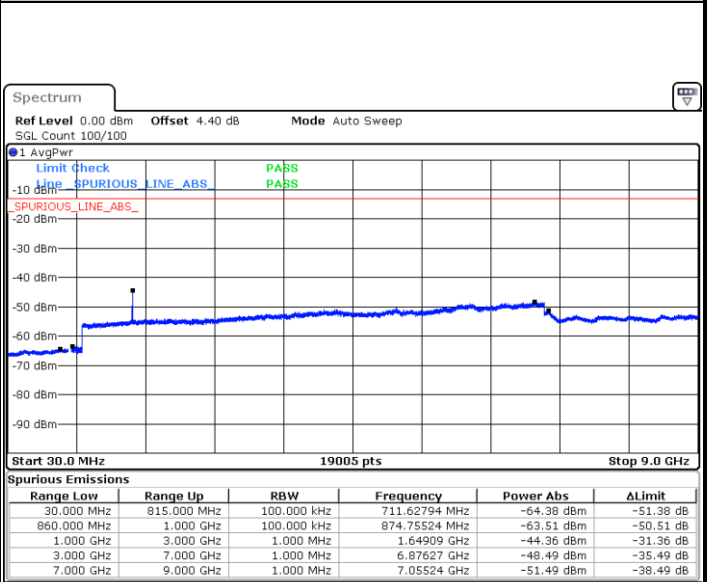
LTE Band 5 / 5MHz

Lowest Channel / QPSK



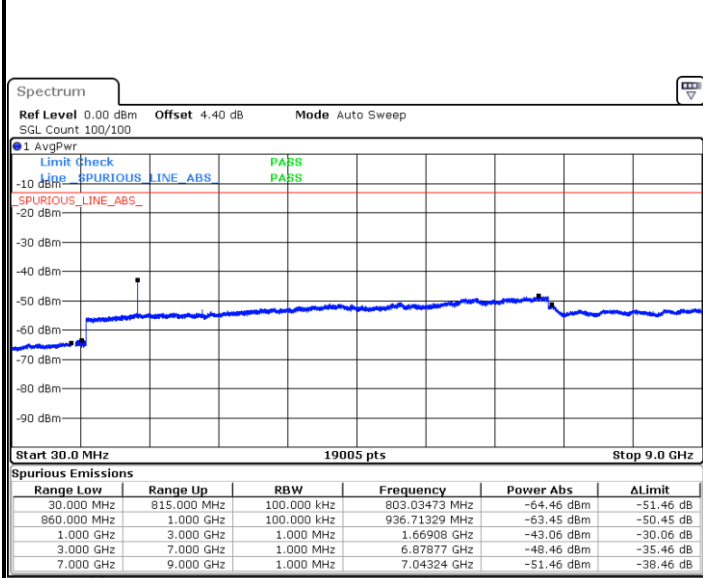
Date: 24 JUL 2018 11:59:42

Lowest Channel / 16QAM



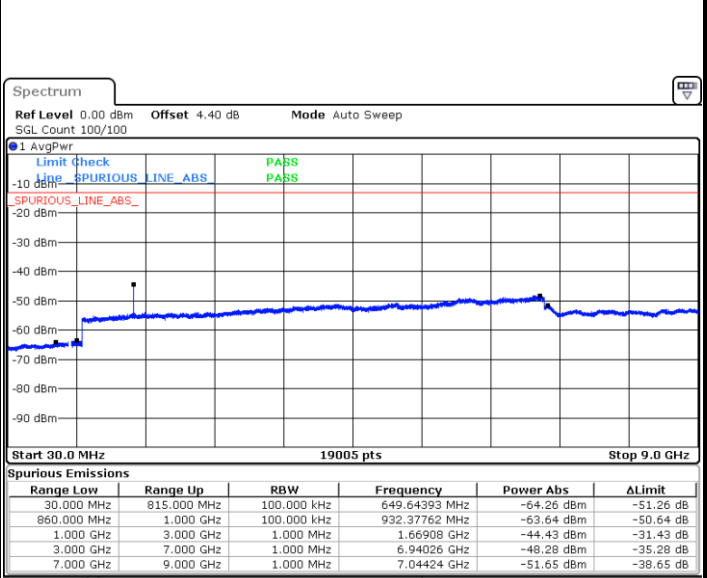
Date: 24 JUL 2018 12:00:36

Middle Channel / QPSK



Date: 24 JUL 2018 12:02:10

Middle Channel / 16QAM

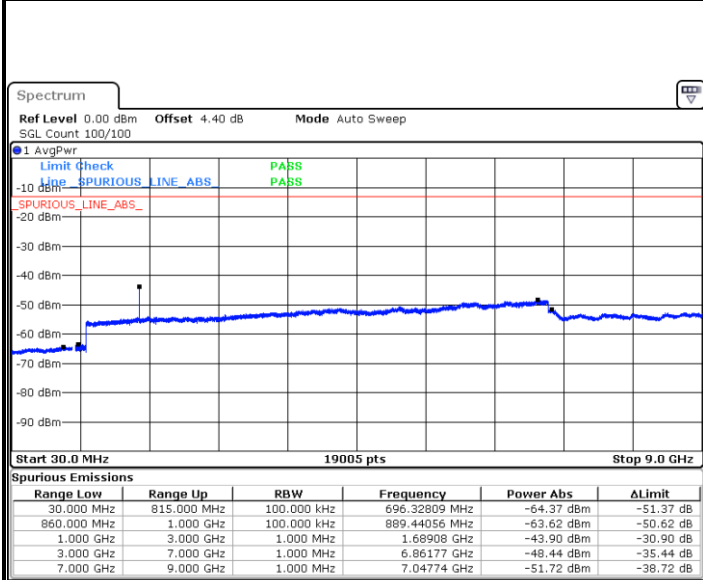


Date: 24 JUL 2018 12:03:05



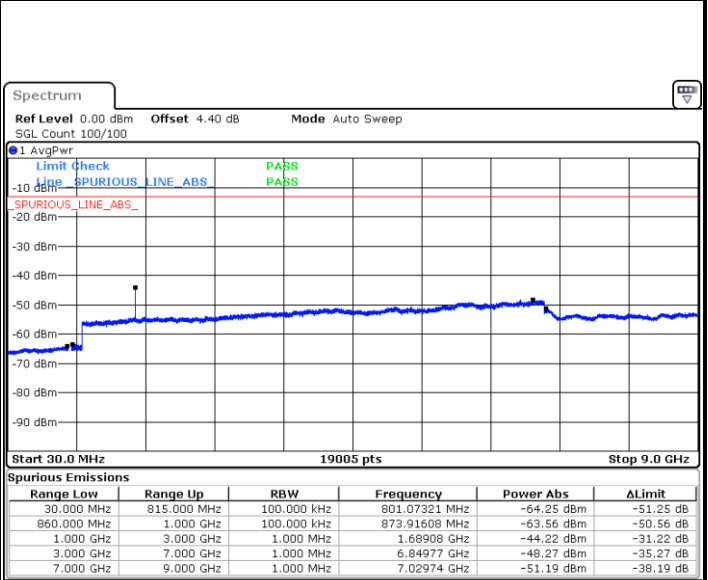
LTE Band 5 / 5MHz

Highest Channel / QPSK



Date: 24 JUL 2018 12:11:08

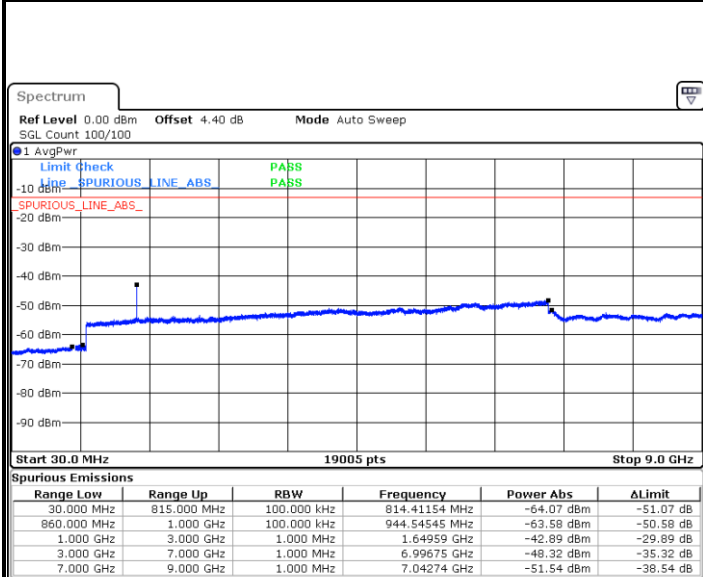
Highest Channel / 16QAM



Date: 24 JUL 2018 12:12:03

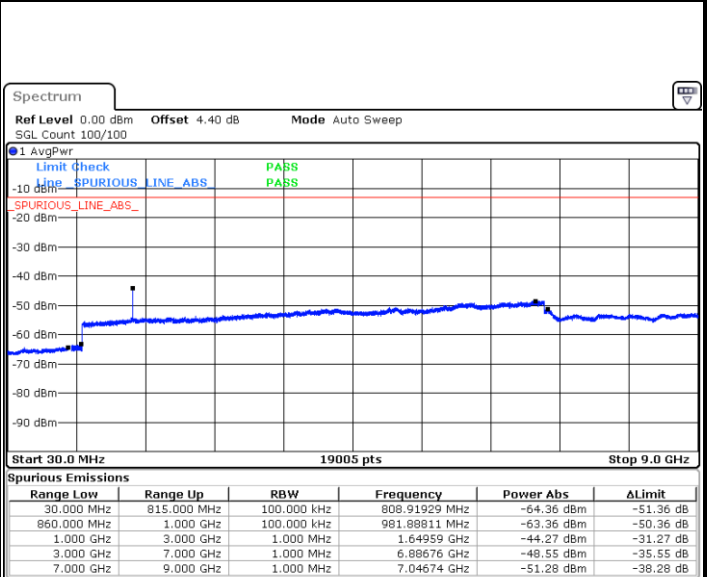
LTE Band 5 / 10MHz

Lowest Channel / QPSK



Date: 24 JUL 2018 12:18:09

Lowest Channel / 16QAM

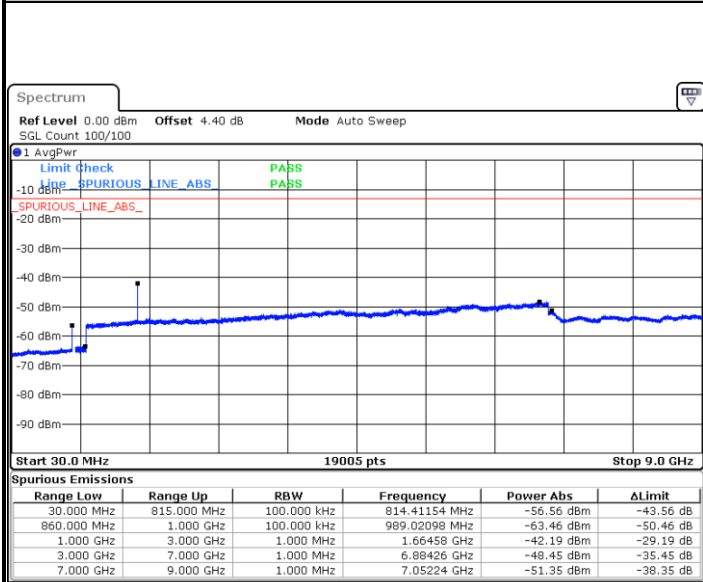


Date: 24 JUL 2018 12:19:03



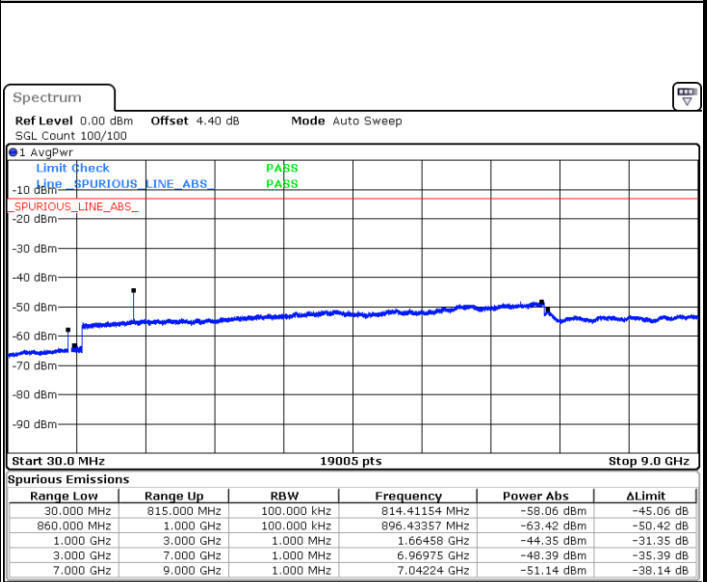
LTE Band 5 / 10MHz

Middle Channel / QPSK



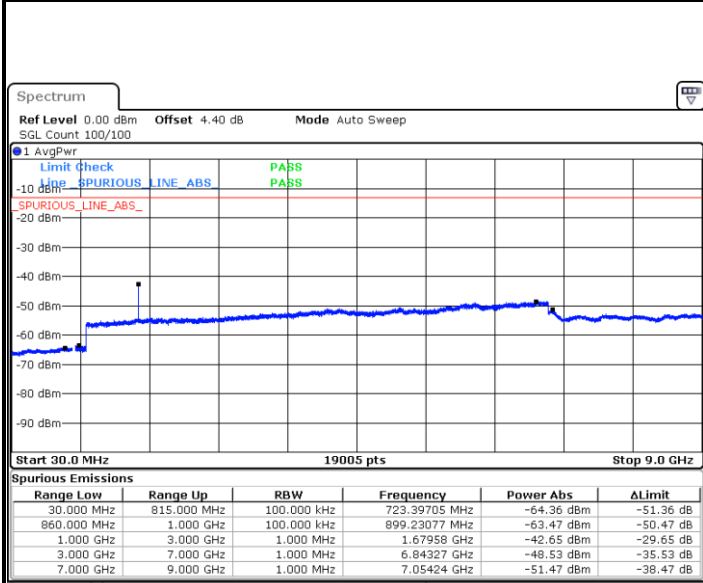
Date: 24 JUL 2018 12:20:18

Middle Channel / 16QAM



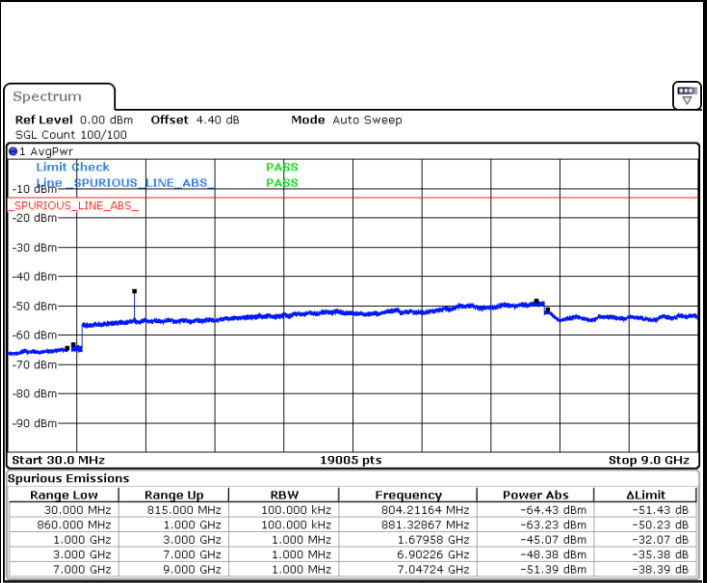
Date: 24 JUL 2018 12:21:12

Highest Channel / QPSK



Date: 24 JUL 2018 12:25:41

Highest Channel / 16QAM

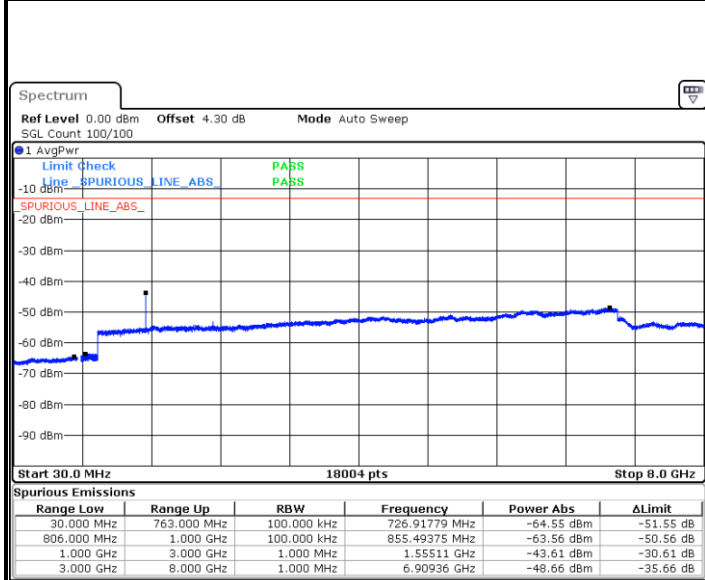


Date: 24 JUL 2018 12:28:35



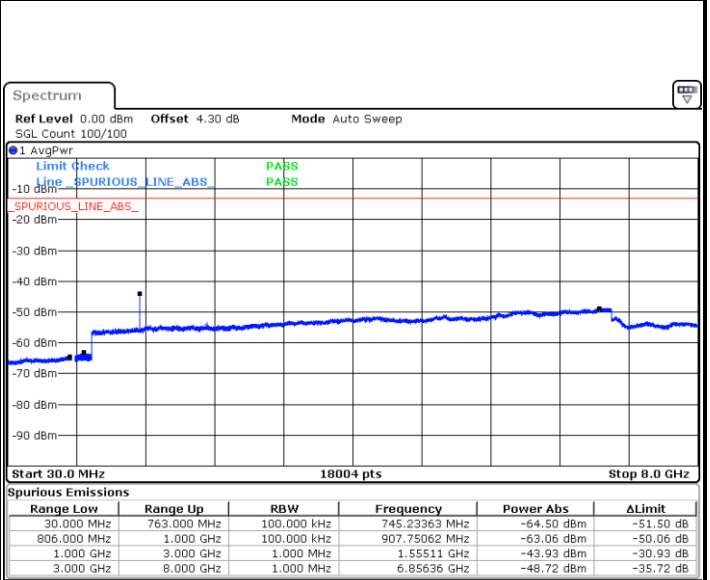
LTE Band 13 / 5MHz

Lowest Channel / QPSK



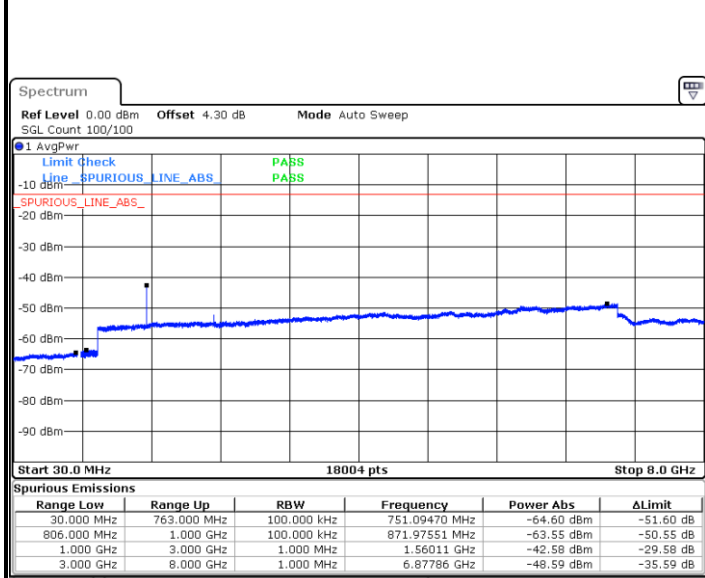
Date: 16 JUL 2018 09:20:24

Lowest Channel / 16QAM



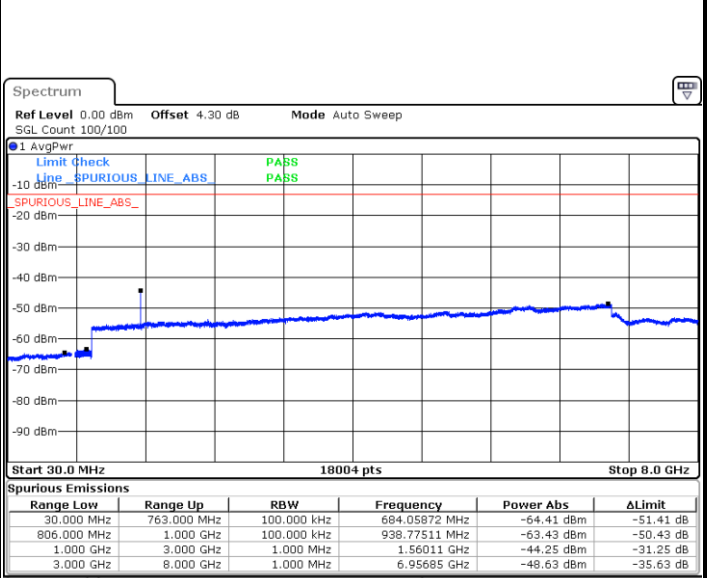
Date: 23 JUL 2018 23:04:43

Middle Channel / QPSK



Date: 16 JUL 2018 09:20:49

Middle Channel / 16QAM

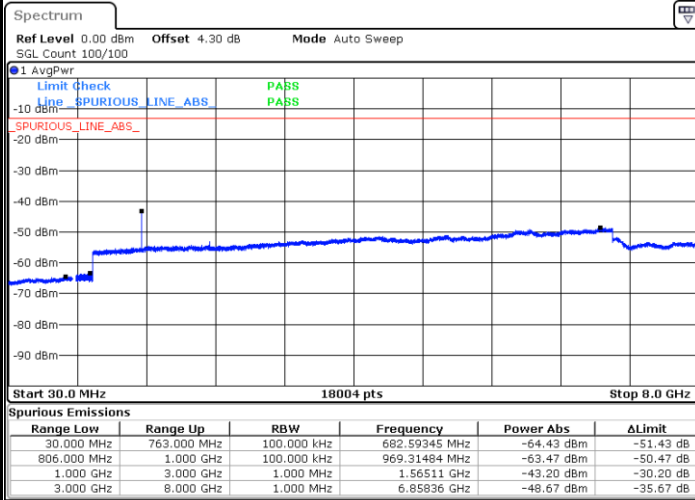


Date: 23 JUL 2018 23:03:33



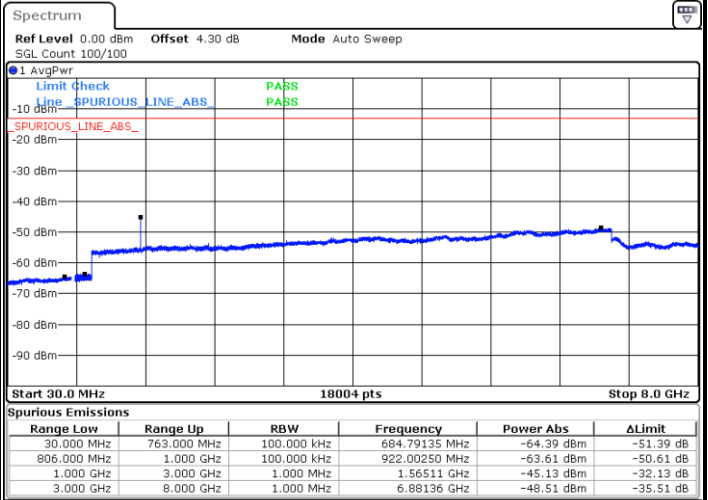
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 16 JUL 2018 09:37:51

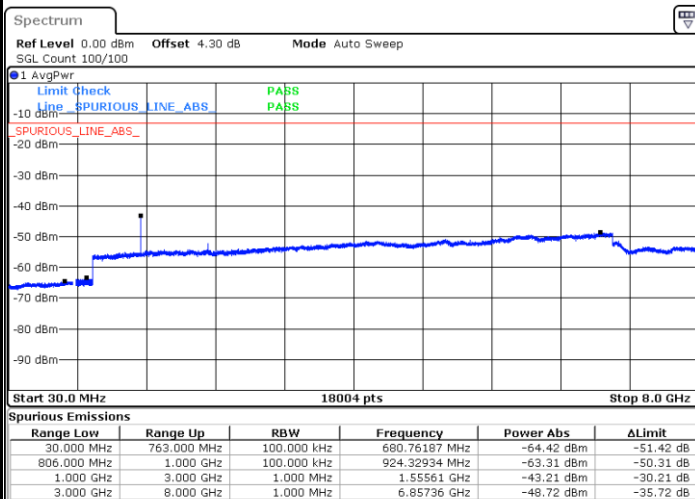
Highest Channel / 16QAM



Date: 23 JUL 2018 23:01:55

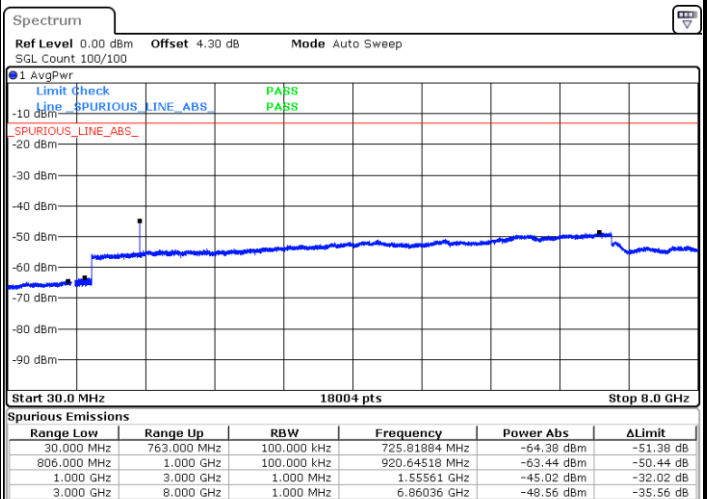
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 16 JUL 2018 09:39:08

Middle Channel / 16QAM



Date: 23 JUL 2018 23:14:06



Frequency Stability

Test Conditions		LTE Band 2 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0013	PASS
40	Normal Voltage	0.0009	
30	Normal Voltage	0.0025	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0001	
0	Normal Voltage	0.0027	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0030	
-30	Normal Voltage	0.0018	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0003	
20	Battery End Point	0.0004	

Note:

1. Normal Voltage =3.7 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0009	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0020	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0024	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0028	
20	Maximum Voltage	0.0008	
20	Normal Voltage	0.0001	
20	Battery End Point	0.0021	

Note:

1. Normal Voltage =3.7 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0008	PASS
40	Normal Voltage	0.0005	
30	Normal Voltage	0.0051	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0049	
0	Normal Voltage	0.0062	
-10	Normal Voltage	0.0014	
-20	Normal Voltage	0.0062	
-30	Normal Voltage	0.0067	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0007	
20	Battery End Point	0.0047	

Note:

1. Normal Voltage =3.7 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0088	PASS
40	Normal Voltage	0.0015	
30	Normal Voltage	0.0055	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0069	
-10	Normal Voltage	0.0029	
-20	Normal Voltage	0.0013	
-30	Normal Voltage	0.0020	
20	Maximum Voltage	0.0070	
20	Normal Voltage	0.0010	
20	Battery End Point	0.0005	

Note:

1. Normal Voltage =3.7 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

LTE Band 2 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3702	-63.10	-13	-50.10	-67.97	3.55	8.42	H
	5553	-58.78	-13	-45.78	-65.12	4.34	10.68	H
	7404	-43.72	-13	-30.72	-50.52	5.14	11.94	H
	9252	-44.18	-13	-31.18	-51.19	5.69	12.70	H
	3702	-62.75	-13	-49.75	-67.62	3.55	8.42	V
	5553	-60.13	-13	-47.13	-66.47	4.34	10.68	V
	7404	-48.68	-13	-35.68	-55.48	5.14	11.94	V
	9252	-49.20	-13	-36.20	-56.21	5.69	12.70	V
Middle	3741	-58.67	-13	-45.67	-63.54	3.55	8.42	H
	5613	-50.90	-13	-37.90	-57.24	4.34	10.68	H
	7485	-47.87	-13	-34.87	-54.67	5.14	11.94	H
	9351	-46.45	-13	-33.45	-53.46	5.69	12.70	H
	3741	-62.47	-13	-49.47	-67.34	3.55	8.42	V
	5613	-56.17	-13	-43.17	-62.51	4.34	10.68	V
	7485	-50.23	-13	-37.23	-57.03	5.14	11.94	V
	9351	-53.73	-13	-40.73	-60.74	5.69	12.70	V
Highest	3783	-63.26	-13	-50.26	-68.13	3.55	8.42	H
	5673	-56.96	-13	-43.96	-63.30	4.34	10.68	H
	7563	-43.38	-13	-30.38	-50.18	5.14	11.94	H
	9459	-42.01	-13	-29.01	-49.02	5.69	12.70	H
	3783	-63.34	-13	-50.34	-68.21	3.55	8.42	V
	5673	-58.78	-13	-45.78	-65.12	4.34	10.68	V
	7566	-46.28	-13	-33.28	-53.08	5.14	11.94	V
	9459	-48.64	-13	-35.64	-55.65	5.69	12.70	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



LTE Band 4 / 20MHz / QPSK								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	3423	-64.46	-13	-51.46	-68.68	3.37	7.59	H
	5133	-60.50	-13	-47.50	-65.69	4.20	9.39	H
	6843	-54.43	-13	-41.43	-61.18	4.92	11.67	H
	8556	-52.43	-13	-39.43	-60.79	5.44	13.80	H
	3423	-63.20	-13	-50.20	-67.42	3.37	7.59	V
	5133	-55.39	-13	-42.39	-60.58	4.20	9.39	V
	6843	-57.41	-13	-44.41	-64.16	4.92	11.67	V
Middle	8556	-54.33	-13	-41.33	-62.69	5.44	13.80	V
	3447	-55.66	-13	-42.66	-59.88	3.37	7.59	H
	5172	-49.20	-13	-36.20	-54.39	4.20	9.39	H
	6894	-51.52	-13	-38.52	-58.27	4.92	11.67	H
	8619	-51.27	-13	-38.27	-59.63	5.44	13.80	H
	3447	-56.19	-13	-43.19	-60.41	3.37	7.59	V
	5169	-52.23	-13	-39.23	-57.42	4.20	9.39	V
Highest	6894	-47.20	-13	-34.20	-53.95	4.92	11.67	V
	8619	-47.26	-13	-34.26	-55.62	5.44	13.80	V
	3471	-55.25	-13	-42.25	-59.47	3.37	7.59	H
	5208	-49.18	-13	-36.18	-54.37	4.20	9.39	H
	6945	-55.12	-13	-42.12	-61.87	4.92	11.67	H
	8679	-51.67	-13	-38.67	-60.03	5.44	13.80	H
	3471	-58.81	-13	-45.81	-63.03	3.37	7.59	V
5208	-49.92	-13	-36.92	-55.11	4.20	9.39	V	
6945	-53.18	-13	-40.18	-59.93	4.92	11.67	V	
8679	-47.24	-13	-34.24	-55.60	5.44	13.80	V	

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



LTE Band 5 / 10MHz / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1650	-66.02	-13	-53.02	-72.67	1.401	10.20	H
	2473.77	-64.83	-13	-51.83	-72.08	1.91	11.30	H
	3297	-64.15	-13	-51.15	-71.97	2.63	12.60	H
	1650	-65.51	-13	-52.51	-72.16	1.40	10.20	V
	2474	-64.83	-13	-51.83	-72.08	1.91	11.30	V
	3297	-63.89	-13	-50.89	-71.71	2.63	12.60	V
Middle	1664	-61.64	-13	-48.64	-63.55	1.14	5.20	H
	2496	-65.44	-13	-52.44	-68.07	1.12	5.90	H
	3327	-64.43	-13	-51.43	-67.64	1.34	6.70	H
	1664	-53.93	-13	-40.93	-55.84	1.14	5.20	V
	2496	-65.12	-13	-52.12	-67.75	1.12	5.90	V
	3327	-64.22	-13	-51.22	-67.43	1.34	6.70	V
Highest	1680	-60.72	-13	-47.72	-67.37	1.401	10.20	H
	2518	-65.99	-13	-52.99	-73.24	1.91	11.30	H
	3357	-64.18	-13	-51.18	-72.00	2.63	12.60	H
	1680	-65.02	-13	-52.02	-71.67	1.40	10.20	V
	2518	-66.09	-13	-53.09	-73.34	1.91	11.30	V
	3357	-64.24	-13	-51.24	-72.06	2.63	12.60	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



LTE Band 13 / 5MHz / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	1554	-59.55	-13	-46.55	-63.41	2.23	6.09	H
	2332	-66.00	-13	-53.00	-66.53	2.83	5.51	H
	3108	-64.21	-13	-51.21	-66.15	3.21	7.30	H
	1554	-60.95	-13	-47.95	-64.81	2.23	6.09	V
	2332	-65.51	-13	-52.51	-66.04	2.83	5.51	V
	3108	-64.31	-13	-51.31	-66.25	3.21	7.30	V
Middle	1560	-52.21	-40	-12.21	-56.07	2.23	6.09	H
	2339	-65.26	-13	-52.26	-65.79	2.83	5.51	H
	3120	-64.88	-13	-51.88	-66.82	3.21	7.30	H
	1560	-55.74	-40	-15.74	-59.60	2.23	6.09	V
	2339	-65.89	-13	-52.89	-66.42	2.83	5.51	V
	3120	-64.70	-13	-51.70	-66.64	3.21	7.30	V
Highest	1564	-60.57	-40	-20.57	-64.43	2.23	6.09	H
	2348	-65.49	-13	-52.49	-66.02	2.83	5.51	H
	3129	-64.87	-13	-51.87	-66.81	3.21	7.30	H
	1564	-63.35	-40	-23.35	-67.21	2.23	6.09	V
	2348	-65.67	-13	-52.67	-66.20	2.83	5.51	V
	3129	-64.77	-13	-51.77	-66.71	3.21	7.30	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 13 / 10MHz / QPSK								
Channel	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	1556	-55.54	-13	-42.54	-57.25	2.23	6.09	H
	2333	-65.34	-13	-52.34	-65.87	2.83	5.51	H
	3111	-64.30	-13	-51.30	-66.24	3.21	7.30	H
	1556	-63.87	-13	-50.87	-65.58	2.23	6.09	V
	2333	-65.76	-13	-52.76	-66.29	2.83	5.51	V
	3111	-63.74	-13	-50.74	-65.68	3.21	7.30	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.